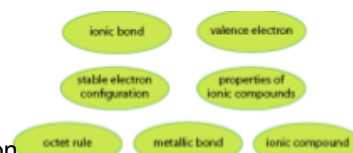


Unit Four Test Review Review

Covers 11.3, 15.1, 15.2, Ch 7all, 16.1, 16.2
p 342-344, p 445-457, p 186-205, p 470-486

UNIT 4

Chem 11



Topics: Reactions in aqueous solutions, complete ionic equation, net ionic equation
-water properties, surface tension, vapor pressure, surfactant, density properties of water, structure of ice, aqueous solution, solvent, solute, solvation, electrolyte, non-electrolyte, weak electrolyte, strong electrolyte, hydrate, efflorescent hydrates, hygroscopic hydrates, formula for percent water
-valence electrons, octet rule, electron dot/lewis dot diagrams, how cations are formed, halides, ionic bond, properties of ionic compounds, coordination number, conductivity of ionic substances, valence electrons in metals, metallic bonds, arrangement of atoms in metals, alloy, properties of alloys
- solution formation(what affects it?), solubility, units for solubility, saturated, unsaturated, miscible, supersaturated,(we did not do so please leave out p 476 Henry's Law), molarity, concentration, units for concentration, dilute, calculations with dilution, calculations with concentration, percent by mass, percent by volume

This is a very short unit and involved some independent study.

Assignments:

1- Weekend assignment involving concentration.

$C=n/V$ when moles was given
and $C=n/V$ when mass was given
working backwards to find mass when
volume and concentration are given.

2- Vocabulary review/reading assignment.

• Molarity (M) = $\frac{\text{moles of solute}}{\text{liters of solution}}$

$$C = \frac{n}{V}$$

Key Equation

• Percent H_2O = $\frac{\text{mass of water}}{\text{mass of hydrate}} \times 100\%$

• Percent by volume = $\frac{\text{volume of solute}}{\text{volume of solution}} \times 100\%$

• Percent by mass = $\frac{\text{mass of solute}}{\text{mass of solution}} \times 100\%$

$V_1 C_1 = V_2 C_2$ OR • $M_1 \times V_1 = M_2 \times V_2$